Capua favillaceana, Hb.—Inch, July.
Sericoris micana, Haw.—Caragh, June.
Aspis udmanniana, L.—Inch and Valentia, June and July.
Cnephasia chrysanthemana, Dup.—Inch, July.
Mixodia schulziana, Fb.—Inch, July.
Laspeyresia aurana, Fb.—Inch, July.

Excluding the Tineina something about 600 species of lepidoptera have been recorded for Kerry. This list therefore, 166 or so, only amounts to about one quarter. Many exceedingly common insects are omitted, and a fair number are new records for Kerry. A resident Entomologist working the year through would no doubt enlarge the list immensely and in all probability make important discoveries. It was only during three visits that I have done any serious work. These took in, the end of May, June, and 10 days towards the end of July, while my last visit was rendered almost hopeless by incessant wet weather.

The specific names and the Geographical Variations of Melitaea parthenoides, Kef. (=parthenie, auct. nec Borkh.) and of parthenie, Borkh. (=aurelia, Nickerl).

By ROGER VERITY, M.D.

(*Concluded from p. 189, vol. XLIII.*)

We next come to the group of races, which fly on the southern watershed of the Alps. One of its peculiarities is that at low altitudes it produces a second generation at the end of August, often quite as abundant as the first of May or June. Taken as a whole, this group differs in a comparatively very distinct way from all those described above: the wings are, on an average, shorter and rounder at the apex; the fulvous is more even in tone and thus less variable both as regards the different parts of the wing surface and the various individuals; the black pattern is, on the contrary, less uniform and notably the central elbowed row of spots tends to form a broad band, across all the wing (never broadened at the back of the cell of the forewing into a triangular patch, as it is particularly in *nigrobscura*), whereas the premarginal bands tend to be thinner. These features all contribute to give the races of this group a more *athalia*- and *parthenoides*-like aspect than one ever finds in the others, and some individuals may even be so very like these species as to make it quite difficult to separate them without the aid of the genitalia. My experience is that the fulvous colour of the palpi, which is considered the best distinctive feature of *parthenie=aurelia*, is not sufficiently sharpe and constant to be reliable in all difficult specimens. It must also be noted that there is a certain parallelism between these features of the southern Alpine watershed and those which distinguish the *athalia* of the same regions from the nominotypical one of Central Europe.

Race *mendrisiota*, Fruhst., *l.c.* The dry mountains of the Canton Tessin (typical from 600 m. on Mount Generoso, south of Lugano, and of June) produce the race with the thinnest black pattern known in the species: in the males the inner premarginal streak goes so far

as to be entirely obliterated in some individuals, so that they might easily be taken for *varia*, M.-D. ; the females are very similar to that form of *rhaetica*, which has a thin black pattern, because the fulvous can be, as in the latter, either replaced by light yellow or by reddish-brown, but on the other hand, they differ from it in that the two colours are never combined together ; the light-coloured females recall those of *parthenoides*, the darker-coloured those of *athalia* ; both are transitional between the appearance of *aurelia* and that of *luceria* from the Cogne valley ; *mendrisiota* differs more from *aurelia* than does *rhaetica* and what distinguishes it from *luceria* is the regularity of the rows of spots over both fore and hindwing.

Race **imitatrix**, nom. nov. : The race, which is broadspread in the Susa Valley, whence I have a large series of specimens from Oulx, 1100m., and others from Mount Musinè, 1000m., at the entrance of that valley and only a few miles from Turin, certainly cannot be called *luceria* as defined below. It is the one which *M. britomartis*, Assm. race *aureliaeformis*, Vrty, from the Venaria park of the latter locality so exactly resembles that the genitalia are the only possible way of distinguishing them. The late Reverdin has dissected those of all my males from Mt. Musinè and several I sent him direct from Oulx, in hopes we might discover a new locality of *britomartis*, but the result was they all turned out to be the species we are dealing with here.

Allowing for the usual very great variability in every respect, race *imitatrix*, taken as a whole, can be described as being of small size, of a rich tone of fulvous and as having a rather heavy black pattern, comparatively with the other races of the southern Alpine water shed ; it thus is exactly the opposite of *luceria* by all three of these features and it resembles *britomartis* on this account, even the difference of thickness between the elbowed band and the two premarginal not usually being as accentuated as in the other races just mentioned. Only about 6% of both sexes can be considered transitional to *luceria* by their larger size, clearer and brighter fulvous and by the thinner and less uniform black pattern ; the females nearly invariably belong to the form which resembles the male most and only 5% point to the one characteristic of *rhaetica* by having a broad black suffusion over the basal half of the wings and the fulvous alternately reddish and yellowish, to the degree which is frequent in *poenina*.

Race *luceria*, Fruhst., *Archiv für Naturgesch.*, 1916, A., 2, p. 11 (1917) : The original description is anything but a happy one and the further comment in the *Archiv* of 1917 (publ. 1919), *l.c.*, only adds to its vagueness and confusion. Fruhstorfer at first only had six specimens, he had collected above the village of Cogne at 1650m. " They constitute," he says, " the most striking form of *aurelia* we are hitherto acquainted with from Europe ; their appearance is that of true children of the south, on account of the brightness of the yellow-brown spots and of their breadth, which is more than double. These specimens are so much more remarkable than 36 I have from Martigny, the Simplon and the Barmsee, in Upper Bavaria, that they are nearly exactly like Seitz's figure of *mongolica*, Stdgr. on pl. 66h." He adds that *luceria* is probably a transition to the " aurelia " recorded by Rocci from Turin, but we, of course, now know, these are *M. britomatis*, Assm.

on the strength of the genitalia. In 1919 he complicates matters by describing a "lowland form" of *luceria*, based on males collected in August in the Brianza (hill district of Lombardy) and on spring specimens from Salsomaggiore (province of Parma), which are said to be of a still brighter leather-yellow and with thinner black streaks than the Cogne examples. Turati informs me he has three specimens of the Soldo, near Alzate (Brianza), collected in May and June 1875. The Salsomaggiore example evidently must have belonged to the following race, which had already been named three years previously from a locality about 30 miles further east and likewise nearly in the plain, at the foot of the Apennines. Excluding, as it should be done, the latter lowland race, one can positively take it that the name of *luceria* must stand for a large Alpine one resembling Seitz's figure of *mongolica*, Stdgr. This sets it on a tolerably definite base.

Race *mussinae*, Costantini, *Atti Soc. Nat. Modena* (5) 3, p. 14 (1916) has been described from La Mussina, near Borzano (prov. of Reggio Emilia). It is said to be abundant there in June and it is described very unsatisfactorily as follows; "a little larger; wings slightly rounded; upperside of wings more fulvous; underside wholly yellower; black pattern, whitish bands, premarginal lunules, ex., different." Some photographic plates the author has sent me show that he compared his specimens with a few from Vienna and fortunately I have also obtained some of his cotypes of both sexes collected on June 11th and a female of June 15th from Mount Gibbio 400m., a few miles further east, near Modena. All doubts are thus removed as to *mussinae* belonging to this species, except for a remote possibility that they should be *britomartis*; this will have to be decided by the dissection of the genitalia, but it compares so much better with the second generation of the race of the Carso and to some specimens of Oulx than to *aureliaeformis*, Vrty, of Turin, that I feel quite sure this is not the case. As a matter of fact it only differs from the second generation of the Carso by its larger size (not equal, however, to that of the first one) and by the black pattern being thicker than in the darkest specimens of the latter; on the other hand it is far from being as dark as many *imitatrix* of Oulx, so that the general aspect of the race can be described as intermediate between the two. It seems very likely that a second generation will be found to exist in Emilia, as it does in Brianza, according to Fruhstorfer, and on the Carso.

Race **carsicola,** nom. nov., and II gen. **postcarsicola**, nom. nov: One is rather surprised at the fact that this species thrives on the dry tableland of the Carso, at about 300m. above Trieste. The first generation flies at the end of May and I have myself collected the second emerging abundantly in late August on the slopes, facing northward, near Opcina. The spring generation attains a larger size than I have seen in any other race, some males having forewings of 18mm. in length, whereas the late summer generation produces some extremely minute individuals of only 14mm. The usual size is 17mm. in the first and 16mm. in the second, and, trifling as this difference may seem, it corresponds to quite a marked one in the aspect of the whole insect. A feature which strikes one in both generations is the far lesser

variability than in other races. The shape of the wings is quite the rounded, *athalia*-like one, of the southern watershed of the Alps. So is the very uniform and even tone of the fulvous, which is rather clear, but decidedly dull; it is lighter and a little brighter in the second generation. So is also the pattern: the central elbowed band is broader, the outer ones narrower, but they are all of the same even breadth across the whole wings and the premarginal ones are very straight and regular; in a few exceptional individuals the inner one is partly or nearly entirely obliterated, but these specimens then stand out amongst the rest, for there is no tendency to vary in this direction, as there is in the very variable *mendrisiota*. The few individuals which occur in both sexes with an extremely thin pattern are also of a very light yellow-fulvous and give one the impression of being aberrations due to the excessive drought. As a rule the females belong to the form most similar to the male, as it is the case in all the driest localities of the species, and thus contribute to increase the uniform aspect of the race as a whole. The darker forms of the species never occur in either sex, as they do further east, in Austria. The second generation, besides being considerably smaller than the first, also exhibited on an average, a thinner black pattern and a lesser and lighter coloured basal suffusion, accompanied by a paler tone of fulvous, so that on the whole there is quite a notable difference. Stauder figures three specimens from this region in the *Zeit. wissenschaft. Insektenbiolig*, 1922, p. 83, but in the text the figures referring to them are mistaken: fig. 12 represents the very small size to which the second generation is often reduced, 13 is quite an abnormal form, with the pattern partly obliterated, 14 is an unusually small female of the first generation, but it shows the thin and even black pattern reduced to the utmost extent; I have found one of the same sort, but smaller, in the second generation.

Newly-described Forms of British Species of Lepidoptera.

Euchloë cardamines ab. *subflavopicta*, Mezger.—"The underside of the forewings have a yellow spot, between the discoidal and the outer margin, of variable shape in different examples." Hungary, *Lamb.* XXXI. 115 (1931).

Mimas tiliae ab. *vitrina*, Gehlen.—"With a round transparent spot on both hindwings symmetrically placed." *Ent. Zt.* XXXV. 204 (1931).

Melitaea aurinia ab. *tetramelana*, Cabeau.—"The yellow basal portion of the hindwings has four large black spots instead of the typical pale yellow spots." *Lamb.* XXXI. p. 174 (1931).

Mimas tiliae ab. *griseothoracea*, Cabeau.—"The thorax is entirely whitish grey." *Lamb.* XXXI. p. 174 (1931).

Melanargia galathea ab. *nigerrima*, Kautz.—"Upperside almost markingless black, with normal white fringes chequered at ends of the veins with black. The forewings with a somewhat grey-whitish suffusion; above the middle of the inner margin in cells 1b and 2 there stands a spot divided by the black vein 2; in cell 2 there is also a small spot seen. The hindwings whitish on the inner-margin, the white of the disc of zigzag shape; bestrewn thickly with fine grey scaling." *Zeit. Oestr. Ent. Ver.* XVI. 86, plt. IV. (1931).